

**State Universities Civil Service System
Human Resource Directors Advisory Committee
Agenda**

July 27, 2012

- 1) Welcome and Introductions
- 2) Review and Discussion of Proposed Rule/Procedure Changes (records retention)
 - a) Administrative Rules – Section 250.50(h)
 - b) Examination Procedures Manual – Section 1.4
 - c) Classification Plan Management Manual – Section 1.3(b)(2)
- 3) Update on new Demonstration Project
- 4) Test Security and Exam Compromise
 - a) Police Sergeant
 - b) Associate Agricultural Research Technician
- 5) Interviewing for Custom Classifications
- 6) Other University System Office Activities
 - a) Class Plan Update
 - b) Budget Update
 - c) Audit Update
 - d) Legal Update
- 7) Other Topics
 - Next Meeting – Friday, November 2, 2012

SUBTITLE A

Section 250.50 Examinations

- a) Kinds of Examinations. Examinations shall be of two kinds: original entry and promotional. Both kinds shall be open and continuous competitive examinations.
- b) Eligibility to Compete in Examinations.
 - 1) Any citizen or resident of the State of Illinois, who applies for examination in a specific class at a constituent place of employment served by the University System, who is not rejected or disqualified under subsection (c), and who meets the minimum qualifications as prescribed in the class specification, shall be admitted to such examination. For classes requiring valid licenses or certificates, an applicant must show possession of such license or certificate at, or prior to, time of taking the examination.
 - 2) A promotional examination shall be open to a status employee in a place of employment, who is not rejected or disqualified under subsection (c), who meets the minimum qualifications specified in the class specification for a higher class in the appropriate promotional line and who, in addition, is working by virtue of a status appointment, in a position of a lower class in the same promotional line, is on leave of absence from such a position, or is on layoff from such a position.
 - 3) An applicant who fails to meet the minimum qualifications established for the class, but who can offer qualifications which in the opinion of the Executive Director are considered to be compensatory, shall be admitted to the examination for the class. The names of all such applicants who pass the examination shall be placed on the appropriate register in order of score.
 - 4) In the absence of a name of a candidate on any existing register for a class, an applicant who does not possess the minimum qualifications for the class and cannot present compensatory qualifications may be admitted with prior approval of the Executive Director to the examination for the class for the purpose of attempting to fill a specific vacancy. The name of an applicant so admitted, and who passes the examination, shall remain on the register only until the specific vacant position has been filled.
 - 5) An applicant with a physical handicap who fails a section or sections of an original entry examination because of circumstances directly related to the handicap, who is subsequently employed in the absence of a register, may, after six months of satisfactory service, upon recommendation of an employer and written approval of the Executive Director, be declared exempt from qualifying on such failed section or sections of the examination, in which case he/she shall become a status employee in the position in which he/she has been employed or in another position in the same class.
 - 6) For classes requiring technical qualifications for which there is an inadequate supply of qualified applicants who are citizens of, or residents in, the State of Illinois, out-of-

SUBTITLE A

state residents may be admitted to the examination. When the citizenship or residency requirement is waived, in-state candidates shall be listed on the register ahead of out-of-state candidates.

- 7) Any applicant may rewrite an examination for a class three times within any twelve month period, with at least one month time lapse between every rewrite. The candidate's place on the register for the class shall be determined by the highest score achieved on any examination for the class.
 - A) For the purpose of this Section, an original entry and a promotional examination shall be considered to be one and the same examination.
 - B) The limitations of this Section do not apply to an applicant who fails the typewriting and transcribing ~~or stenographic~~ sections of an examination.
- c) Rejection or Disqualification of Applicants. The employer may reject any applicant, or, after examination, the Executive Director may refuse to certify any candidate who, in addition to requirements specified in Section 36f of AN ACT to create the State Universities Civil Service System ~~[110 ILCS 70/36f](Ill. Rev. Stat. 1987, ch. 24 1/2, par. 38b5)~~ and subsection (b), fails to pass a physical examination given to determine his/her physical qualifications for employment, uses intoxicating beverages to excess, uses narcotics, has been dismissed from either private or public service for a cause detrimental to his/her employment by an employer under the ~~University State Universities Civil Service~~ System ~~(System)~~, has maintained an unsatisfactory employment record, has practiced deception or fraud in his/her application, examination, or material pertaining to these, or has committed an offense which in the judgment of the Executive Director disqualifies him/her for employment.
- d) Character of Examinations.
 - 1) Examinations shall consist of one or more of the following: written test; performance test; oral test; physical test; aptitude test; practical test; other appropriate tests; a rating of experience and training.
 - 2) All examination content shall be provided by the staff of the University System.
 - 3) All examination supplies and materials and all examinations are the property of the University System.
 - 4) An original entry or promotional examination may be revised, with the approval of the Executive Director, without affecting existing original entry or promotional registers for the class, providing such revision does not change the character or weighting of sections of the examination.
 - 5) The character or weighting of sections of an original entry or promotional examination may be changed, with the approval of the Executive Director, providing that there is sufficient evidence that the current examination for the class is not a

SUBTITLE A

satisfactory examining instrument; and providing, further, that such character or weighting of the examination has been in use for a period of at least one year; and providing, further, that 45 days advance notice of such change shall be given to all appropriate employers who shall then communicate such notice in writing to each candidate then on an original entry or promotional register by score and shall further communicate such notice in writing to any applicant who applies for an original entry or promotional examination during such 45-day period. During the 45-day period, qualified applicants (including candidates whose names are already on the register by score), at their request, will be scheduled for the examination. At the end of the 45-day period the original entry or promotional registers of candidates by score will be voided, and new original entry or promotional registers by score shall be established on the basis of the new examination.

- e) Administration of Examinations. As approved by the Executive Director, examinations shall be scheduled and administered by the employer. Such examinations shall be conducted on an open and continuous basis, except for examinations to original entry registers at each place of employment, as requested by the employer and approved by the Exectuive Director, that have a sufficient number of candidates on the register which preclude further recruitment and testing. In making a determination to reopen (or close) an examination, the Executive Director will consider requests by the employer or other individuals based on the number of positions in the class, projected new positions, and annual turnover rate. Also, for examinations that have been closed for six months or more, the Exectuive Director will review the need for continuing the approval of a closed examination. The employer shall be responsible for the security of all examination materials supplied to the employer by the University System so long as they are in the employer's custody.
- f) Rating of Examinations.
 - 1) The Executive Director and ~~the his~~ of the University System shall use appropriate scientific techniques and procedures in rating tests and in determining resulting rank to the end that all competitors receive uniform and fair treatment.
 - 2) Failure in any portion of a total examination, the passing of which is deemed necessary to qualify for eligibility in the class for which the applicant is being examined, shall eliminate the applicant from passage of the complete examination, regardless of his/her score in other portions thereof. For each eliminating test and the final average in an examination, the Executive Director shall announce the minimum acceptable rating.
 - 3) The passing score for eligibility for certification shall be determined by the Executive Director. This score shall be the same for all examinations given for a class, but it may be changed if in ~~his-the~~ judgment of the Exectuive Director such change is for the best interest of the University System; and such change shall be applicable uniformly to all examinations for the class. The passing score shall be made known to all those taking the examination.

SUBTITLE A

- 4) An applicant who fails to gain eligibility for employment in a higher class may, at the discretion of the Executive Director, elect to accept eligibility for a lower appropriate class, if his/her scores on all appropriate parts of the examination are sufficient to qualify him/her for the lower class.
 - 5) All examination scores shall be on a scale of 1 to 100, with decimal points in examination scores being rounded off to the nearest whole number, i.e., with below .5 having the decimal points dropped and with .5 or above being rounded to the next whole number.
- g) Notification and Review of Scores.
- 1) An applicant shall be sent a written notice of the date and results of his/her examination. Such notice must indicate whether the score achieved is passing or failing and if it includes credit for Veterans Preference.
 - 2) All requests of applicants for review of scores shall be made to the Executive Director.
- h) Filing of Examination Records. All ~~administered~~ examinations, and all examination components, administered ~~—given~~ by the employer shall be retained by the employer in accordance with the employer's record retention policy, or in accordance with the University System's record retention policy ~~for at least a period of two months after date of scoring the examination.~~

Section 1 – General Duties and Responsibilities of the Employer

1.4 FILING EXAMINATIONS

The employer shall retain all civil service examinations administered, including all examination components and other relevant examination materials, for a designated period of time in accordance with the employer's formal record retention policy. If the employer's record retention policy fails to specifically address the retention of these civil service examinations, and related documents, then the employer must retain these documents in accordance with the University System's record retention policy. The University System's record retention policy currently requires a five (5) year retention period from the date of scoring the examination. The University System employer shall retain the examination for a period of at least two months after the date of scoring of the examination.

All University System Answer sheets (blue-bubble sheets) should be sent to the University System Office 30 days after the examinations have been graded.

Section 1 – Classification Specification and Examination Maintenance

1.3 CLASSIFICATION SPECIFICATION AND EXAMINATION DEVELOPMENT PROCESS

a. General Outline

1. Review of current and other related class specifications/examinations and other resources
 - A. University System Office review
 - B. External occupational research
 - C. Subject matter expert review
 - D. Examination analysis
 - E. Test item analysis
2. Job Analysis
 - A. New Classifications
 - B. Current/Existing Classifications
 - C. Electronic presentation (E-Test)
 - D. Special-case job analysis procedures
3. Evaluation of Job Analysis
 - A. Identify work tasks/duties, skills required, establish importance and frequency, set minimum qualifications
 - B. Additional occupational research
4. Class Specification and Examination Preparation
 - A. Create Class Specification
 - B. Create Examination Instrument Using Skill Set Matches
5. Class Specification and Examination Review Meeting
 - A. Meeting scheduled
 - B. Review draft class specification changes
 - C. Review draft examination materials
 - D. Modify and set effective date
6. Examination Pre-Testing
 - A. Pre-testing of examination components
 - B. Statistical analysis of pre-test results
 - C. Collection of additional information from incumbent/subject matter experts
 - D. Item seeding
 - E. Security and distribution of pre-test results
7. Validity
 - A. Content validity established by incumbent pre-test examination scores/passing rate.

Section 1 – Classification Specification and Examination Maintenance

- B. Criterion validity established by successful completion of the probationary period.
 - C. Additional validity measures may be established by correlating test scores with objective or subjective indicators of job performance.
 - D. Small samples and meaningful index reviewed.
8. Security and Confidentiality in the Examination Development Process
- A. Obligations under section 37 of the State Universities Civil Service Act (110 ILCS 70/37).
 - B. Instructions for handling examination documents and materials.
 - C. Consequences for security violations.

b. Summary of Classification/Examination Development Process

The Executive Director or designee within the University System Office will evaluate formally submitted proposals to assess the credibility of the criteria cited as justification on the submitted request. Formally submitted proposals may be returned for additional information or rejected.

There are many reasons to justify a proposed change to the classification plan, including but not limited to, the following:

- routine occupational changes
- adverse impact issues
- business or operational changes
- reaction to previous proposals
- specific changes or evolution of job classification duties
- technology changes related to overall position function
- discontinuation of specified job activities

Accordingly, University System Office staff may utilize the following analytical steps, as necessary, in their review of all proposed classification plan modifications, regardless of origination source (initiated by an employer, an employee through the State Universities Civil Service Advisory Committee, other designated advisory groups, union representatives, or the University System Office).

1. Review of current and other related classification specifications/examinations and other resources

- A. The University System Office will review current class specification/examination, considering the date of the last review and the format of the specification/examination.

Section 1 – Classification Specification and Examination Maintenance

- B. The University System Office will research external resources related to similar job classifications and appropriate occupational areas to review the latest occupational trends and specific job or job group content.
- C. Various subject matter experts will be enlisted to provide direct occupational background information and begin analysis of examination instrument.
- D. The examination instrument review will include the following:
 - 1) A review of the skill set link and question pools used in the current examination.
 - 2) Update/addition of questions to incorporate new occupational trends/technology.
 - 3) Verification of accuracy of answers.
 - 4) Identification of problem questions or questions that are likely to be challenged.
- E. Each test item will be analyzed using classical reliability theory and, where appropriate, item response theory (IRT). Classical reliability statistics become mostly stable with samples of 50-60. IRT-based analyses are only appropriate when the number of test-takers is much greater, with minimum samples of about 200 test-takers. IRT postulates a function (item response function, or IRF) relating the probability of a correct response for an item to an underlying level of ability, thus making considerably stronger assumptions about the data, necessitating more power to estimate the model. Therefore, the following statistics are most reliable with samples greater than 30. With smaller samples, subjective item difficulty ratings will be collected at pre-testing (see *Section 1.3(b)(6)(C)(2)*).
 - 1) Classical reliability statistics
 - i) Mean: Proportion of test-takers who correctly answer the item. This is an indicator of item difficulty.
 - ii) Corrected Item-Total Correlation (CITC): The correlation between the item responses and the total test score (minus the studied item). This is an indicator of how well the item measures the characteristic assessed by the test.
 - iii) Cronbach's Alpha: This is a measure of internal consistency reliability. In general, high values are desirable (in general, .80 minimum, .90 preferred). This means that the items on the test "hang together" well, or have high item inter-correlations. Alpha is a lower bound for the true reliability of the test under reasonable assumptions.
 - iv) In cases where Cronbach's alpha is not the most appropriate index of reliability, other reliability evidence may be used (i.e., test-retest, alternate forms, etc.; cf. Traub, 1994).
 - 2) Item response theory statistics
 - i) a-parameter: Item discrimination: This indicates how well the item discriminates between test takers of differing levels of ability. Related to the CITC.

Section 1 – Classification Specification and Examination Maintenance

- ii) b-parameter: Item difficulty: Higher b's are more difficult items, meaning that test-takers have to have a higher level of ability to have a high probability of answering correctly. Related to the item mean.
 - iii) c-parameter: Pseudo-guessing parameter. This is the lower asymptote of the IRF, indicating the probability that a test-taker with extremely low ability will answer the item correctly.
 - iv) Information: Information is the IRT analogue of reliability. It is a function of the item parameters and ability. It is additive, such that the information function for a test is equal to the sum of the information functions for the individual items. For a large enough number of items, test information is approximately the reciprocal of the standard error of the ability-estimate. Therefore, conditional standard errors of measurement can be calculated at all levels of ability, allowing the precision of measurement to be differentially assessed across the ability continuum. Additionally, information can be used to build tests, by incorporating items so that the sum of their information functions closely matches a target information function.
- 3) Items with undesirable statistical properties will be eliminated or revised. Undesirable properties are generally defined to be item means above .90 or below .10 and CITC below .20. These rules-of-thumb may be modified in specific cases.

2. **Job Analysis**

A. New Classifications

- 1) When proposing to add a new classification, the University System Office will review the proposed classification specifications, and any related position descriptions. This information will be compared to other similar occupational jobs in the current classification system. Additional occupational research will be conducted using appropriate resources such as the Occupational Information Network (O*NET).
- 2) Based on this research, the University System Office will develop and administer an appropriate job analysis survey as applicable, such as the Computerized Job Analysis Survey Instrument (C-JASI), to subject matter experts in order to determine the most appropriate duties and functions to be contained in the new classification, along with the knowledge, skills and abilities (KSAs), necessary to successfully perform those duties and functions. This will assist in clarifying the new position specifications and identify the necessary skill set elements for the examination.
- 3) Job analysis surveys, or C-JASI, will be administered through a secure website and the results will be stored on a secure server. All information collected will be securely stored and maintained in accordance with University System records retention policies.

Section 1 – Classification Specification and Examination Maintenance

B. Current/Existing Classifications

- 1) When updating or revising existing classification, the University System office will begin with a review of current position descriptions and the proposed new classification specifications. This information will be compared to other similar occupational jobs in the current classification system. Additional occupational research will be conducted using appropriate resources such as the Occupational Information Network (O*NET).
- 2) Based on this research, the University System office may develop and administer C-JASI to current incumbents, supervisors, and departmental administrators to evaluate the congruence of the proposed specification and the work actually being performed. Other analytical procedures, such as the collection and review of job descriptions, may also be utilized. This information will be used to establish the relationship between the current position duties and responsibilities under review and the proposed specification, along with the KSAs required to perform those duties.
- 3) C-JASI will be administered through a secure website and the results will be stored on a secure server. All information collected and statistical analysis will be securely stored and maintained in accordance with University System records retention policies.

C. Limited job analysis techniques will typically be conducted when paper-based exams are simply being converted to an electronic delivery format (E-Test). This process may include the simple steps of confirming with supervisors and administrators that duties for the classification have remained intact and unchanged.

D. In special cases, other job analysis techniques may be used, such as onsite focus group interviews with job incumbents and/or supervisors, direct observation of incumbents performing work tasks, critical incidents studies, among other techniques (cf. Gatewood & Feild, 2001). Copies of all materials and information collected will be securely stored and retained in accordance with University System records retention policies.

3. **Evaluation of Job Analysis**

- A. C-JASI will be used to identify work tasks and duties currently performed by employees in the designated classification, as well as the importance and frequency of these tasks. For classifications where a knowledge test may be used, participants will also indicate what skills are necessary to perform each task.
- 1) Statistics reported are demographic information for the surveyed groups, mean importance/frequency ratings for tasks in the overall sample and by group, and mean importance rating for KSAs in the overall sample and by groups, where applicable. Percent endorsements for specific educational and work experience are also reported.

Section 1 – Classification Specification and Examination Maintenance

- 2) The results will provide an empirical linkage between duties performed on the job and examination items. Linkage is established by tying specific job tasks/duties to specific KSAs. Items may then be written to assess the KSAs needed to perform the job.
 - 3) In some cases, items will be written to assess performance directly for specific duties for the classification, rather than KSAs needed to perform those duties.
 - 4) Information regarding minimum qualifications will also be obtained to update the class specification, as well as guide the development of credential assessments, when applicable. These minimum qualifications are based on subject matter expert endorsement of specific educational and work experience backgrounds needed for the job and/or specific credentials needed to perform the job.
- B. Additional research, via the Internet or other information sources, may be conducted.

4. **Class Specification and Examination Preparation**

- A. Class Specification
- 1) Based on results of the review of job descriptions and/or C-JASI data, and/or in conjunction with the acceptance of the Request to Develop or Revise Class Specifications/Examinations, a draft class specification will be prepared, outlining the general function, specific duties/responsibilities and minimum acceptable qualifications.
 - 2) The proposed class specification will be distributed to employers for their review and comments, prior to the Class Specification and Examination Review Meeting.
- B. Examination
- 1) To ensure validity, a draft examination will be prepared, based on the statistical analysis of the position descriptions and/or C-JASI. This will include a review/analysis of work tasks and duties currently performed by employees in the designated classification, the importance and frequency of these tasks, and the KSAs required to perform those tasks. Examination instruments may include one or more of the following components:
 - i) performance/aptitude questions
 - ii) essay/written questions
 - iii) review/rating of credentials (education/experience and license/certificates)
 - iv) skills measurement, such as a keyboarding test
 - v) physical ability assessment
 - vi) conscientiousness assessment
 - vii) personality characteristic assessment
 - viii) oral interview and presentation

Section 1 – Classification Specification and Examination Maintenance

- 2) In certain test environments, new test items may be “seeded”. Seeded items are those items that are pre-tested in live test forms. Seeded items are not scored and do not count towards or against the final test score. Test-takers are blind to which items are seeded and which are live. Seeded items are properly analyzed prior to their active use in any test environment.
- 3) In certain test environments, test item subject content pools will be established and categorized based on established analytical procedures. Each examination administered will equally draw from the appropriate test item pools to establish a consistent distribution and reliability across all examinations given in any one classification. Test items will randomly be presented when possible. Correct answer designations for each test item will also be randomly presented when possible.

5. **Class Specification and Examination Review Meeting**

- A. Upon completion of the research and analysis as described above, along with a draft of the new or revised specifications and/or examination instrument, a review meeting will be scheduled. In most instances, University System Office staff, Designate Employer Representatives/Human Resources, subject matter experts, and Union Representatives will be notified and asked to participate.
- B. Participants will be asked to review the draft class specifications.
- C. Participants will be asked to review the draft examination materials.
- D. If necessary, modifications will be made to draft documents with final specifications/examination instruments adopted. At this time, the effective date of implementation will usually be determined.
- E. Prior to the finalization of the class specification/examination process, a secondary review by each employer shall determine whether the proposals will affect employees who are members of bargaining units and shall officially inform appropriate union officials of the proposal. DERs shall certify to the University System Office that union officials have been informed of the proposal as a part of their written comments. Comments received as a result of the proposal shall be reviewed by the Executive Director or designee, who may approve, disapprove, or return the proposal to its originator for resolution of issues raised.

Note: Once the review meeting is conducted and all information collected, only basic editorial corrections to the class specification and/or examination will be considered.

6. **Examination Pre-Testing**

- A. In most instances, the proposed new examination instrument will be pre-tested, using current incumbents in the classification. This will typically be done via the E-Test system.

Section 1 – Classification Specification and Examination Maintenance

- B. The pre-test results will be statistically analyzed to establish content and criterion validity.
 - 1) Items with undesirable measurement properties will be eliminated.
 - 2) It is expected that incumbents will score more highly on average than applicants (due to range restriction), so that the definition of undesirable item statistics (*from Section 1.3(b)(1)(E)(3)*) will be different. It is not unreasonable for all incumbents to get an item right, so item means of .90 and above on pretests are acceptable. However, items with means below .50 do merit further consideration and will be more discretely analyzed.
- C. Additional information about individual test items will be collected from incumbents or subject matter experts. This information includes item appropriateness for the examination and subjective item difficulty information.
 - 1) Item appropriateness ratings can be used to calculate content validity ratios (CVRs; Lawshe, 1975). CVRs provide evidence that the examination validly assesses KSAs appropriate to the classification. $CVR = (n - N/2) / (N/2)$, where:
 - i) n = the number of respondents who regard the question as relevant to the target position
 - ii) N = the total number of respondents
 - 2) Subjective item difficulty ratings will be used to evaluate the difficulty of items when samples are too small to estimate item means or b-parameters (i.e., samples less than 30).
- D. As new items become available, they will be “seeded” as defined in *Section 1.3(b)(4)(B)(2)* above.
- E. The results of the pre-test will be stored on a secure server and shared with participating employers. All information collected will be securely stored and maintained.

7. **Validity**

- A. Content validity is established through job analysis techniques and the pre-testing passing rate of incumbents, as described above. This process provides a statistical link between the test elements and the behaviors and/or work product components of the job.
- B. In most cases, criterion validity will be established by the passing rate for the probationary period for the classification.
- C. In some rare cases, criterion validity will be established by correlating test scores with objective or subjective indicators of job performance. This will be done only when sample sizes are large enough (e.g. $N > 60$) and when sufficient performance related information is available.
- D. In some cases (e.g., $N < 30$) samples are too small for any meaningful index of criterion-related validity to be established.

Section 1 – Classification Specification and Examination Maintenance

Exception: A proposal may be approved prior to circulation if the Executive Director identifies an immediate need for its use. All employers and members of the State Universities Civil Service Advisory Committee will subsequently be notified.

8. Security and Confidentiality in the Examination Development Process

- A. During the examination development process, participants will be trusted with confidential draft examination material and will be involved in confidential conversations. All participants shall keep examination materials confidential and secure. Any person, including, but not limited to a University System Office staff member, Designated Employer Representative, other campus/agency Human Resource employee, subject matter expert, Union Representative, or incumbent, involved in any step of the examination development process, who discloses, distributes, wrongfully maintains, or secures materials utilized in the development of any civil service examination shall be in violation of section 37 of the State Universities Civil Service Act (110 ILCS 70/37).
- B. During the course of examination development, the University System Office employees assisting with the examination development will instruct all persons participating in the exam development process on the proper maintenance, distribution, and possible destruction of all final and draft examination documents and materials. The employer's Human Resource staff will not involve any other persons (ex: subject matter expert, incumbents) without direct notice to the University System Office. Should the employer's Human Resource staff involve any other personnel (ex: subject matter expert, incumbent), the employer's Human Resources staff will instruct those employees on the proper maintenance, distribution, and possible destruction of draft examination materials and provide notice of this involvement to the University System Office.
- C. Any violation of the State Universities Civil Service Act, and, by extension, these security procedures, is considered a criminal offense and punishable under 110 ILCS 70/46. If a breach of security is discovered, the University System Office may be forced to discontinue the use of the exam in question, void all employment registers for that classification, and freeze all related employment activities in the affected classification until such time that a new exam can be developed.

References

Gatewood, R. D., & Field, H. S. (2001). *Human Resource Selection* (5th Ed.). Mason, OH: South-Western Thomson Learning.

Lawshe, C. H. (1975). A quantitative approach to content validity. *Personnel Psychology*, 28, 563-575.

Traub, R. E. (1994). *Reliability for the social sciences: Theory and applications (Volume 3)*. Thousand Oaks, CA: Sage Publications, Inc.